



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/676,844

09/30/2003

Jens Ittel

13913-112001/2003P00325

3764

U

32864

7590

03/12/2007

FISH & RICHARDSON, P.C.

PO BOX 1022

MINNEAPOLIS, MN 55440-1022

EXAMINER

VERDI, KIMBLEANN C

ART UNIT

PAPER NUMBER

2109

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

03/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/676,844

Applicant(s)

ITTEL ET AL.

Examiner

Kacy Verdi

Art Unit

2109

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

This office action is in response to the Application filed on September 30, 2003. Claims 1-19 are pending in the current application.

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "425" has been used to designate both Inbound Plug and Outbound Plug of Figure 4. Inbound Plug should be referenced as character 420, which is disclosed in the specification on page 8, line 5.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:
 - a. View Composition, reference character 245, Fig. 2B and Fig. 3;
 - b. Component context, reference character 255, Fig. 2B and Fig. 3;
 - c. Controller Usage, reference character 315, Fig. 3;
 - d. Embedder Context, reference character 320, Fig. 3; and
 - e. UI Element, reference characters 410 and 415, Fig. 4.
3. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be

labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities:
 - a. Runtime Framework of Fig. 3 is referenced as Runtime Framework 305 in the disclosure on page 10, line 21, however reference character 305 has been used to designate Component Usage Object of Figure 3 in the disclosure, on page 10, line 27, and drawings. For examination purposes the runtime framework 305 will be referred to as reference character 105 as it appears to refer the Application Development Framework, 105, of Figure 1;
 - b. Runtime Framework of Fig. 3 is referenced as Runtime Framework 115 in the disclosure on page 11, line 16, however reference character 115 has been used to designate Component_1 of Figure 1 in the disclosure, on page 5, line 21, and drawings. For examination purposes the runtime framework 115 will be referred to as reference character 105 as it appears to refer the Application Development Framework, 105, of Figure 1; and
 - c. Component Repository of Fig. 1 is referenced as Component Repository 115 in the disclosure on page 10, line 19, however reference character 115 has been used to designate Component_1 of Figure 1 in the disclosure, on page 5, line 21, and drawings. For examination purposes the component repository 115

will be referred to as reference character 110 as it appears to refer the Component Repository, 110, of Figure 1. Appropriate correction is required.

5. As written, claim 19 invokes 35 U.S.C. 112, sixth paragraph. If the Applicant does not wish the claim limitation to be subject to this provision, claim 9 should be rephrased or amended accordingly. See MPEP §2181.

Claim Objections

6. Claims 1-3, 12-16, and 18-19 are objected to because of the following informalities: the limitation of "the component" in claims 1-3, 12-16, and 18-19 is not defined in the disclosure but appears to refer to the limitation of "the reusable component", examiner suggests replacing the limitation of "the component" with the limitation of "the reusable component". Appropriate correction is required.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

With respect to claims 1-11, a "computer program product" is being recited; however, it appears that a computer program product would reasonably be interpreted by one of ordinary skill in the art as software, per se. The computer program product as claimed does not set forth a practical application of the invention or produce a

tangible result. As such, it is believed that the computer program product of claims 1-11 is reasonably interpreted as functional descriptive material, per se.

With respect to claims 1-11, an "information carrier," in accordance with Applicant's specification, may be an electromagnetic signal (propagated signal, page 17, lines 20 of disclosure). This subject matter is not limited to that which falls within a statutory category of invention because it is not limited to a process, machine, manufacture, or a composition of matter. Instead, it includes a form of energy. Energy does not fall within a statutory category since it is clearly not a series of steps or acts to constitute a process, not a mechanical device or combination of mechanical devices to constitute a machine, not a tangible physical article or object which is some form of matter to be a product and constitute a manufacture, and not a composition of two or more substances to constitute a composition of matter.

With respect to claims 12-18, a "computer implemented method" is being recited; however, it appears that the method would reasonably be interpreted by one of ordinary skill in the art as software, per se. The computer implemented method as claimed does not set forth a practical application of the invention and does not make use of memory or computer storage media to produce a tangible result. As such, it is believed that the computer implemented method of claims 12-18 is reasonably interpreted as functional descriptive material, per se.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by “Using the SNAP™ External Application Software Component,” by Template Software, Inc.

(hereinafter EXT).

11. As to claim 8, EXT teaches a computer program product, tangibly embodied in an information carrier, for implementing an application runtime framework, the computer program product comprising instructions operable to cause data processing apparatus to:

receive a component interface (handle) to be used in an application without a specification of a corresponding component implementation (SNAP Object Model module of the External Application Software component uses handles to access SNAP elements, page 3-3, lines 20-23 of EXT); and

instantiate a particular component implementation at application runtime (SNAP Object Model module of the External Application Software component provides functions to create and delete object in an object model, page 2-2, lines 10-19 of EXT), the particular component implementation being selected from one or more component implementations corresponding to the component interface (SNAP Object Model module of the External Application Software component provides functions to view, change, create, and delete object model data, page 3-2, lines 5-7 of EXT).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-6, 12-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Getting Started with SNAP™," by Template Software, Inc. (hereinafter START), in view of "Using the SNAP™ Development Environment," by Template Software, Inc. (hereinafter SNAPDEV).

14. As to claims 1, 12 and, 19, START teaches the invention substantially as claimed including a computer program product, computer implemented method, and an apparatus comprising:

implementing a reusable software component encapsulating functionality, multiple instances of the component being usable at the same time (Object Model component, Fig. 5-1, page 5-3 of START);

the component having a programming interface for programmatic interaction with the component (External Application Software component, Fig. 5-1, page 5-3 of START);

the component having a data-binding interface for data communication with the component (Communication component, Fig. 5-1, page 5-3 of START); and

the component having a visual interface for access to the at least one visual representation of the component (Graphic User Interface component, Fig. 5-1, page 5-3 of START).

Although START teaches the invention substantially, START does not specifically disclose the component having at least one visual representation.

However SNAPDEV teaches the component having at least one visual representation (Instance of GUI Object Class, ex. Window or Display, Display Classes Table 4-2, page 4-5 and 4-6 of SNAPDEV).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of START to include the feature of the component having at least one visual representation (Instance of GUI Object Class, ex. Window or Display, Display Classes Table 4-2, page 4-5 and 4-6 of SNAPDEV) as taught by SNAPDEV because this documentation describes release 8.0 of the SNAP™ product and is a publication of the SNAP™ documentation set (page 1-5, table 1-2 of SNAPDEV).

15. As to claims 2 and 13, START as modified teaches the computer program product and method of claims 1 and 12, wherein implementing the component comprises: implementing the component having the programming interface, the data-binding interface, and the visual interface as separate interfaces (Foundation Template Components, Fig 5-1, page 5-3 of START).

16. As to claims 3 and 14, START as modified teaches the computer program product and method of claims 1 and 12, further comprising: implementing one or more

controllers for the component (Inference Engine, Event Handler, Fig. 5-1, page 5-3 of START), each controller having an associated context for storing data and state for the controller (Rule-based knowledge sources and Event-driven knowledge sources for storing values and procedures, page 5-14, lines 38-48, of START).

17. As to claims 4 and 15, START as modified teaches the computer program product and method of claims 3 and 14, further comprising: implementing one or more views for the component (ex. Displays), each view providing a visual representation of the component (Graphic User Interface is comprised of Displays, page 4-2, lines 1-7 and 45-50 of SNAPDEV).

18. As to claims 5 and 16, START as modified teaches the computer program product and method of claims 1 and 12, further comprising: embedding a sub-component into the component (create object model for each process in application (parent object model), page 3-2, lines 1-3 of SNAPDEV).

19. As to claims 6 and 17, START as modified teaches the computer program product and method of claims 5 and 16 wherein embedding the sub-component comprises: using a programming interface, a data-binding interface, and a visual interface of the sub-component ((child object model) created from Foundation Template Components, Fig 5-1, page 5-3 of START).

20. Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over START, as modified by SNAPDEV, as applied to claims 1 and 12 above, and further in view of "Using the SNAP™ Language," by Template Software, Inc. (hereinafter LANG).

21. As to claims 7 and 18, START as modified by SNAPDEV teaches the invention substantially as claimed including the computer program product and method of claims 1 and 12 wherein implementing the component comprises:

implementing the component having the programming interface including an interface controller (Inference Engine, Fig. 5-1, page 5-3 of START) and a configuration controller (Event Handler, Fig. 5-1, page 5-3 of START), the visual interface including an interface view (Graphic User Interface Editor, page 4-2, lines 45-46 of SNAPDEV), and the data-binding interface providing context mapping for the interface controller context and the configuration context (SIB mapping, import/export map, page 5-3, table 5-1, of SNAPDEV).

Although START as modified by SNAPDEV teaches the invention substantially, START as modified does not specifically disclose having an interface controller context and having a configuration controller context.

However LANG teaches having an interface controller context (rule-based knowledge sources, page 3-4, lines 25-31 of LANG) and having a configuration controller context (demon, event driven knowledge source, page 3-4, lines 32-35 of LANG).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of START as modified by SNAPDEV to include the feature of having an interface controller context (rule-based knowledge sources, page 3-4, lines 25-31 of LANG) and having a configuration controller context (demon, event driven knowledge source, page 3-4, lines 32-35 of LANG) as taught by

LANG because this documentation describes release 8.0 of the SNAP™ product and is a publication of the SNAP™ documentation set (page 1-5, table 1-2 of LANG).

22. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over "Using the SNAP™ External Application Software Component," by Template Software, Inc. (hereinafter EXT), in view of "Getting Started with SNAP™," by Template Software, Inc. (hereinafter START).

23. As to claim 9, although EXT teaches the computer program product of claim 8, EXT does not specifically disclose, wherein the component interface has a programming interface, a data-binding interface, and a visual interface.

However START teaches wherein the component interface has a programming interface, a data-binding interface, and a visual interface (Foundation Template Components, Fig 5-1, page 5-3 of START).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of EXT to include the feature of wherein the component interface has a programming interface, a data-binding interface, and a visual interface (Foundation Template Components, Fig 5-1, page 5-3 of START) as taught by START because this documentation describes release 8.0 of the SNAP™ product and is a publication of the SNAP™ documentation set (page 1-5, table 1-2 of START).

24. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over "Getting Started with SNAP™," by Template Software, Inc. (hereinafter START) in view of U.S. Patent Application Publication 2003/0046395 A1 to Fleming et al. (hereinafter Fleming).

25. As to claim 10, START teaches the invention substantially as claimed including a computer program product, tangibly embodied in an information carrier, for implementing an application runtime framework, the computer program comprising instructions operable to cause data processing apparatus to:

receive an event subscription (demon) for a subscribing component, the event subscription specifying subscriptions to one or more events generated by sub-components embedded by the subscribing component (demons triggered at class or attribute level of object, page 5-17, lines 3-9 of START).

Although START teaches the invention substantially, START does not specifically disclose cache any events generated by the sub-components that are specified by the event subscription if the subscribing component has not been instantiated; and

forward any cached events to an instance of the subscribing component after the subscribing component is instantiated.

However Fleming teaches cache any events generated by the sub-components that are specified by the event subscription if the subscribing component has not been instantiated (Subscription Callback Lookup and Event Notification Service, paragraphs [0025]-[0029]); and

forward any cached events to an instance of the subscribing component after the subscribing component is instantiated (event is delivered to callback once callback object obtained, paragraph [0030]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of START to include the feature of cache any events generated by the sub-components that are specified by the event subscription if the subscribing component has not been instantiated (Subscription Callback Lookup and Event Notification Service, paragraphs [0025]-[0029] of Fleming); and

forward any cached events to an instance of the subscribing component after the subscribing component is instantiated (event is delivered to callback once callback object obtained, paragraph [0030] of Fleming) as taught by Fleming because this provides a subscription cache, which helps to implement the delivery of events more efficiently (paragraph [0019] of Fleming).

26. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over "Using the SNAP™ Communication Component" (hereinafter COM) in view of U.S. Patent 5,426,747 A1 to Weinreb et al. (hereinafter Weinreb).

27. As to claim 11, COM teaches the invention substantially as claimed including a computer program product, tangibly embodied in an information carrier, for implementing an application runtime framework, the computer program product comprising instructions operable to cause data processing apparatus to:

receive one or more context mappings (SIB Mappings) for a component, the context mappings being specified by a component embedder using the component to exchange context data with the component (specify a SIB mapping declaratively, pg 5-10, lines 1-49 and Using SIB Connection Editor, page 5-9, lines 13-15 of COM); and

create the specified context mappings for the component after the component has been instantiated (mappings take effect when connection is made, page 5-10, line 36 of COM).

Although COM teaches the invention substantially, COM does not specifically disclose if the component has not been instantiated, cache the specified context mappings.

However Weinreb teaches if the component has not been instantiated, cache the specified context mappings (data section transferred to client computer's cache memory, col. 3, lines 14-17).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of COM7 to include the feature of if the component has not been instantiated, cache the specified context mappings (data section transferred to client computer's cache memory, col. 3, lines 14-17 of Weinreb) as taught by Fleming because this provides a mechanism to allow a client computer to keep data in its cache between transactions and to ensure data consistency and coherency (col. 2, lines 19-21 of Weinreb).

Conclusion

28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Turner et al. (U.S. Patent 6,230,309 B1) discloses a design tool for assembling component objects to form an object-based computer system application includes a declarative user input interface mechanism and a design engine.

Andersh et al. (U.S. Patent 7,117,480 B2) discloses In general, the invention is directed to a system of reusable software components that allow computational models to be seamlessly integrated into an executable software program, such as process management software within a manufacturing facility.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kacy Verdi whose telephone number is (571) 270-1654. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao Wu can be reached on (571) 272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KV
February 22, 2007


XIAO WU
SUPERVISORY PATENT EXAMINER